Amendment to the Claims

1. (currently amended) An electromagnetic actuator, comprising:

an armature movable in an axial direction relative to a magnet frame including a core section and a yoke section;

a coil which can be electrically energized to move said armature;

said magnet frame being hollow-cylindrical in configuration and at least partially surrounding said armature, said magnet frame including an intermediate section comprising non-magnetic material between said core section and said yoke section, there being a first connection interface between said yoke section and said intermediate section and a second connection interface between said intermediate section and said yoke section; and

at least one of the connection interfaces comprising a <u>rotary</u> friction weld.

2. (previously presented) The actuator of claim 1, wherein at least one of said yoke section and said core section has a frustoconical profile at an end facing said intermediate section.

3. (previously presented) The actuator of claim 2, wherein the frustoconical profile merges in a truncated manner into a flat annular section which lies in a plane perpendicular to the axial direction.

4. (previously presented) The actuator of claim 1, wherein said intermediate section is designed as a tubular element which, at an end facing said yoke section, said core section, or both, has a frustoconical profile adapted to the respective end of said yoke section or core section.

5. (previously presented) The actuator of claim 1, wherein said intermediate section is designed as a tubular element which, at an end facing said yoke section, said core section, or both, is flat and adapted to the respective end of said yoke section or core section.

6. (previously presented) The actuator of claim 1, wherein said yoke section and said intermediate section are formed in one piece from non-magnetic material.

7. (previously presented) A method for manufacturing a magnet frame for an electromagnetic actuator, the magnet frame including a core section, a yoke section and a non-magnetic intermediate section between the core and yoke sections, by making a permanent connection between the core section and the intermediate section as mating elements of a first connection interface and between the yoke section and the intermediate section as mating elements of a second connection interface, said method comprising:

rotating one of the mating elements of the first connection interface, the second connection interface, or both;

pressing the respective other mating element of the first or second connection interface against the rotating mating element to effect frictional heating which plasticizes the surface of the intermediate section pressed against the surface of the core section or the yoke section;

stopping the rotation; and

pressing the mating elements against one another to produce a welded connection interface.

8. (previously presented) The method as claimed in claim 7, which comprises producing the first connection interface and the second connection interface at the same time.

9. (previously presented) The method as claimed in claim 7, which comprises producing the first connection interface and the second connection interface sequentially.

10. (previously presented) The method claim 7, which comprises rotating one of the mating elements of the first connection interface, the second connection interface, or both at a rotational velocity within a range between 1500 and 2500 revolutions per minute; wherein

pressing takes place with a pressure of between 50 and 250 N/mm^2; and wherein

the mating elements are pressed against one another with a compression force within a range between 80 and 300 N/mm^2.

11. (canceled)

12. (previously presented) The actuator of claim 2, wherein said intermediate section is designed as a tubular element which, at an end facing said yoke section, said core section, or both, has a frustoconical profile adapted to the respective end of said yoke section or core section.

13. (previously presented) The actuator of claim 3, wherein said intermediate section is designed as a tubular element which, at an end facing said yoke section, said core section, or both, has a frustoconical profile adapted to the respective end of said yoke section or core section.

14. (previously presented) The actuator of claim 2, wherein said intermediate section is designed as a tubular element which, at an end facing said yoke section, said core section, or both, is flat and adapted to the respective end of said yoke section or core section.

15. (previously presented) The actuator of claim 3, wherein said intermediate section is designed as a tubular element which, at an end facing said yoke section, said core section, or both, is flat and adapted to the respective end of said yoke section or core section.

16. (previously presented) The method claim 8, which comprises rotating one of the mating elements of the first connection interface, the second connection interface, or both at a rotational velocity within a range between 1500 and 2500 revolutions per minute; wherein

pressing takes place with a pressure of between 50 and 250 N/mm^2; and wherein

the mating elements are pressed against one another with a compression force within a range between 80 and 300 N/mm^2.

17. (previously presented) The method claim 9, which comprises rotating one of the mating elements of the first connection interface, the second connection interface, or both at a rotational velocity within a range between 1500 and 2500 revolutions per minute; wherein

pressing takes place with a pressure of between 50 and 250 N/mm^2; and wherein

the mating elements are pressed against one another with a compression force within a range between 80 and 300 N/mm^2.